

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 11

UNITED STATES PATENT AND TRADEMARK OFFICE

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Ex parte CHRISTIAN SCHADE, ROBERT HEINZ,
THEKLA BORS, and HANS-ULRICH WEKEL

Appeal No. 2001-1241
Application No. 09/101,234

ON BRIEF

Before WILLIAM F. SMITH , ADAMS, and GRIMES, Administrative Patent Judges.

GRIMES, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 1-9 and 11, all of the claims remaining. Claim 1 is representative and reads as follows:

1. A granular material obtainable by pressing mixtures of at least one carboxyl-containing polymer as main component and at least one oil-soluble component, wherein use is made of a polymer component obtainable by free-radical-initiated copolymerization of monomer mixtures comprising
 - a) from 50 to 99.93% by weight of a monoethylenically unsaturated C₃-C₆-monocarboxylic acid, a monoethylenically unsaturated C₄-C₈-dicarboxylic acid or their anhydrides or

salts or mixtures of the specified carboxylic acids, their anhydrides and/or salts,

- b) from 0.05 to 5% by weight of one or more compounds having at least two ethylenically unsaturated, nonconjugated double bonds in the molecule as crosslinker,
- c) from 0.02 to 10% by weight of at least one C₁-C₃₀ alkyl (meth)acrylate and
- d) from 0 to 50% by weight of other water-insoluble monomers copolymerizable with the monomers (a), (b) and (c).

The examiner relies on the following references:

Shukla et al. (Shukla)	5,169,645	Dec. 08, 1992
Schade et al. (Schade)	WO 95/03790	Feb. 09, 1995

Claims 1-9 and 11 stand rejected under 35 U.S.C. § 103 as obvious in view of the combined teachings of Shukla and Schade.

We reverse.

Background

Appellants' specification discloses that "weakly crosslinked polycarboxylic acids, which may be hydrophobicized, are widely used in cosmetics, medicine and pharmacy." Page 1. "These products are finely divided, often easily electrostatically chargeable and very dusty powders." Id. Their fine, dusty nature makes the powders difficult to process and requires special safety measures to keep them from being inhaled. See id.

"Press agglomeration enables the particle size of polymers to be increased and thus the handleability of the powders to be improved." Id. Agglomerated carboxyl-containing polymers are suitable for the production of aqueous gels, but not for the production of oil-containing systems such as

emulsions. See id., page 2. “The pressed agglomerates produced according to the prior art do not disintegrate completely in the oil phase . . . , so that the subsequent addition of water and/or a base results in the formation of mixtures containing large, lumpy pieces of gel.” Id.

The specification discloses “low-dust, free-flowing granular materials comprising pulverulent polymer which can be incorporated into oil phases without the disadvantages described,” making them suitable for use in cosmetics and pharmaceuticals. Id. “[T]his object is achieved by addition of at least one oil-soluble component to the pulverulent polymer before or during press agglomeration to give a granular material which can be dispersed very well in oil and additionally can be handled without complicated safety measures.” Id.

Discussion

As we interpret it, claim 1 is directed to a granular material made by pressing a mixture of an oil-soluble component and at least one carboxyl-containing polymer;¹ the polymer in the claimed material is made by free-radical-initiated copolymerization of a monomer mixture comprising at least three components: (a) a monoethylenically unsaturated mono- or dicarboxylic acid (50 to 99.93% by weight of the mixture), (b) a compound having at least two ethylenically unsaturated, nonconjugated double bonds as a cross-linker (0.05 to 5% by weight of the mixture), and (c) an alkyl (meth)acrylate (0.02 to 10% by

¹ The language of claim 1 is somewhat ambiguous. For example, the claim refers to both a “carboxyl-containing polymer as main component” and a “polymer component;” we interpret both of these phrases to refer to the copolymer comprising monomers (a) through (d). The claim also states that “use if made of a polymer component;” we interpret this phrase to mean simply that the claimed granular material comprises the recited polymer component.

weight of the mixture). Optionally, other monomers can also be included. The specification states that the oil-soluble component can be, inter alia, a wax, sterol, oil, or fat. See pages 8-9.

The examiner rejected claims 1-9 and 11 as obvious in view of Shukla and Schade. The examiner characterized Shukla as teaching wax granules “obtained when waxes are admixed with certain flow improving additives.” Examiner’s Answer, page 3. The examiner noted that Shukla teaches that the additives include “methacrylic acid, maleic acid, etc. [which] read on the components a) and c) of instant claims.” Id. The examiner acknowledged that “Shukla et al[.] differs from the instant invention in that they do not teach the cross linkers.” Id.

The examiner relied on Schade to make up this difference. See the Examiner’s Answer, pages 3-4:

Schade et al[.] teaches the cross-linked copolymers produced by polymerization of monomer mixtures [similar to those of claim 1] (see the abstract, page 3, lines 17-47, pages 4-6). All the monomers and cross-linkers read on the instant monomers and Schade et al[.] teaches the cross linked polymers as dispersants, stabilizers and thickeners in cosmetic and pharmaceutical applications (see page 2, lines 26-33 and page 9, lines 40-44). Further, Schade et al[.] teaches the preparation of these polymers with different viscosities (see polymers 1-12 on pages 10-13), including the claimed percentages of monomers, cross linkers, oil soluble components etc.

The examiner concluded that “both the references teach modifying the viscosity or rheology of the composition, using the instant polymers. Therefore, it would have been obvious for one of an ordinary skill in the art to use the monomers and cross linkers of Schade et al[.] to arrive at the polymers of Shukla

et al[.], for efficient polymerization, to obtain desired flow properties of the composition and at the same time stabilize the composition.” Id., page 4.

Appellants acknowledge that “Schade teaches . . . cross-linked copolymers of mono-ethylenically unsaturated carboxylic acids of the instant inventions [sic] as thickeners or dispersants or stabilizers in pharmaceutical and cosmetic preparations.” Appeal Brief, page 6. Appellants argue, however, that Schade and Shukla do not support a prima facie case of obviousness, because

there is no evidence found in Shukla or Schade, or any other known references, as to why one of skill in the art would be motivated to modify Shukla’s composition to become what applicants have claimed, especially with regard to the polymer component which is obtained by free-radical-initiated copolymerization of the monomer mixture. . . . Without evidence found in the cited art itself, there would have been no motivation for the skilled artisan to modify what is shown in the art in order to arrive at the instant invention as claimed.

Id., pages 6-7.

We disagree with Appellants’ assertion that the evidence of motivation to combine must come from the cited references themselves. See In re Dembiczak, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999) (“[E]vidence of a suggestion, teaching, or motivation to combine may flow from the prior art references themselves, the knowledge of one of ordinary skill in the art, or, in some cases, from the nature of the problem to be solved.”). However, we agree that the examiner has not made out a prima facie case of obviousness.

The examiner bears the burden of establishing a prima facie case under 35 U.S.C. § 103. In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). The examiner “can satisfy this burden only by showing some

objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references.” Id. An adequate showing of motivation to combine requires “evidence that ‘a skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed.’” Ecolochem, Inc. v. Southern Calif. Edison Co., 227 F.3d 1361, 1375, 56 USPQ2d 1065, 1075 (Fed. Cir. 2000).

In this case, we note first that most of the Schade reference is written in German. The only English-language portion of the reference is the abstract. Therefore, our consideration of Schade has been limited solely to what is disclosed in the English-language abstract. Appellants have conceded that Schade teaches “cross-linked copolymers of mono-ethylenically unsaturated carboxylic acids of the instant inventions [sic].” Appeal Brief, page 6. However, Schade teaches those copolymers in combination with “saturated, nonionic surface-active compounds, as stabilizers in oil-in-water emulsions . . . and in cosmetic and pharmaceutical preparations based on oil-in-water emulsions.”

Shukla’s wax/polymer granules, on the other hand, are not disclosed to be useful in oil-in-water emulsions but in producing pharmaceutical products in tablet form. See columns 1 to 2:

Before the 1950’s, most pharmaceutical tablets were manufactured by granulating the active ingredients and diluents together with suitable binders. The purpose of doing so was to produce free flowing compressible granules well suited for tableting in a tableting press.

. . .

[C]ompression diluents, including waxes are also known. . . . These waxes are usually if not always chemically inert, can impart sustained release characteristics when required and, as drug diluents, provide a level of cohesion which approaches the ideal. . . .

The disadvantage with waxes inheres in their flow properties, however. . . . [M]ost waxes tend to clump, not flow, and as such are generally inappropriate for use in tabletting presses and similar production machinery. . . . A free-flowing granulated wax is therefore the theoretical ideal as a diluent for incorporation into a compressed drug containing matrix.

. . .

SUMMARY OF THE INVENTION

It has been identified that wax-containing granules having improved flow properties are obtained when one or more pharmaceutically-acceptable waxes are admixed in the melt with one or more flow improving additives [e.g., acrylic polymers], with cooling and granulation of the admixture.

Column 1, line 10 to column 2, line 23.

The examiner has not adequately explained why a person of ordinary skill in the art would have been motivated to substitute Schade's cross-linked polymer for the non-crosslinked polymers used by Shukla. The examiner takes the position that substituting one polymer for the other would have been obvious because "both the references teach modifying the viscosity or rheology of the composition, using the instant polymers." Examiner's Answer, page 4. What Schade actually says, however, is that the disclosed cross-linked polymers are useful as "stabilizers in oil-in-water emulsions." We understand the reference to "stabilizers" to mean that the polymers prevent the emulsion from separating into hydrophobic and hydrophilic phases, not that they change its viscosity or

rheology. The examiner has not explained why those skilled in the art would have read the reference to “stabilizers” to imply “modifying the viscosity or rheology of the composition.”

More important, the examiner does not address the difference between the compositions disclosed by the references: Schade’s cross-linked polymer is disclosed to be useful in oil-in-water emulsions while Shukla’s non-crosslinked polymers are used to make wax granules free-flowing. Thus, even if both Shukla and Schade would be understood to teach modifying viscosity using similar polymers, the polymers are used to modify different types of compositions. The examiner has not adequately explained why those skilled in the art would have been motivated to combine a polymer disclosed to be useful in oil-in-water emulsions with a wax granule composition.

“Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination.” ACS Hosp. Systems, Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). Since the examiner has not shown that those skilled in the art would have been motivated to combine the cited references, the rejection under § 103 must be reversed.

Other Issues

In the future, the examiner would be well-advised not to rely on foreign-language documents. An English-language equivalent, if available, or a translation of the foreign document would be a much more reliable basis for a prior art rejection. See, e.g., Ex parte Jones, 62 USPQ2d 1206, 1208 (Bd. Pat.

App. Int. 2001) (“Citation of an abstract without citation and reliance on the underlying scientific document itself is generally inappropriate where both the abstract and the underlying document are prior art. . . . It is our opinion that a proper examination under 37 CFR § 1.104 should be based on the underlying documents and translations, where needed.”).

As far as this application is concerned, we note that the examiner in the Answer cited several pages of the German-language portion of Schade as disclosing facts relevant to the patentability of the instant claims. At one point, the examiner implies that Schade’s working examples anticipate the claims, although no rejection under 35 U.S.C. § 102 was made. See the Examiner’s Answer, page 4 (“Schade et al[.] teaches the preparation of these polymers with different viscosities (see polymers 1-12 on pages 10-13), including the claimed percentages of monomers, cross linkers, oil soluble components etc.”). As noted above, we have not considered the German-language portion of Schade because we cannot read it. The examiner should obtain a translation or English-language equivalent of Schade in order to fully evaluate its relevance to the instant claims. Even if the examiner is fluent in technical German, and can understand the parts of Schade that are cited in the Examiner’s Answer, a translation would allow the rest of us who are charged with reviewing the rejection to also understand the reference.

Summary

We reverse the rejection under 35 U.S.C. § 103 because examiner has not established that a person skilled in the art would have been motivated to combine the cited references.

REVERSED

William F. Smith)	
Administrative Patent Judge)	
)	
)	
)	BOARD OF PATENT
Donald E. Adams)	
Administrative Patent Judge)	APPEALS AND
)	
)	INTERFERENCES
)	
Eric Grimes)	
Administrative Patent Judge)	

EG/dym

Appeal No. 2001-1241
Application No. 09/101,234

Page 11

Keil & Weinkauf
1101 Connecticut Avenue NW
Washington DC 20036